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EXAMINER	
CEHIC, KENAN	

ART UNIT	PAPER NUMBER
2616	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/535,239	TAKEMOTO ET AL.	
	Examiner	Art Unit	
	KENAN CEHIC	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 34 is objected to because of the following informalities: For claim 34, "a channel band" in line 8 seems to refer to the same limitation in claim 34 lines 2. It is suggested to change this limitation to –said channel band--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1-3,5,12,17,22,23,28,29 is rejected under 35 U.S.C. 102(b) as being anticipated by Yoshiaki (EP0969628).

For claim 1, Yoshiaki discloses a network relay device (see Figure 1, 3110) connected to a first communications network (see Figure 1, 3110, 3102,3101 "IEEE 1394" or "Radio Network", 3120, 3110) communicating with a first channel band (see section 0134 "radio resources…bandwidth necessary…isochronous channel on the IEEE 1394 bus" and column 35 lines 18-25 "acquires …isochronous channel….bandwidth of the isochrounous channel…is equal to 10 Mpbs" and see column 60 lines 36 through column 61 line 45 "acquires the Isochronous channel X….acquires channel A on the radio network….bandwidth is set…base station 9110 transfers the converted image data to the

channel a on the radio network"), said device including a first network interface (see Figure 1, 3110, "IEEE 1394") and a second communications network (Figure 1, "Radio Network", 3120, 3110 or , 3110, 3102,3101 "IEEE 1394") with which said device (see Figure 1, 3110) can transmit data after securing a second channel band (see column 60 lines 36 through column 61 line 45 " "acquires channel A on the radio network....bandwidth is set...base station 9110 transfers the converted image data to the channel a on the radio network"), said device including a first network interface (see Figure 1, 3110, "IEEE 1394") where said device is connected (see Figure 1, 3110, 3102, 3101) to the first communications network (see Figure 1, 3110, 3102,3101) and a second network interface (see Figure 1, 3110, "Radio Interface") where said device (see Figure 1, 3110) is connected to the second communications network (see Figure 1, 3110, 3120 and section 0122 lines 1-15 "connected by a radio interface";) said device (see Figure 1, 3110) comprising:

an event/state detecting section (see Figure 11, 3110, 4005, 4002) for detecting an event and/or a state (see column 60 line 36 through column 61 line 10 "packets ...are about to be received....connection command....connection between...base station node") regarding the first communications network (see column 60 line 36 through column 61 line 10 "1394 node....packets ...are about to be received....connection command....connection between...base station node") via the first network interface (see Figure 1, 3110, "IEEE 1394") ;

a communications resource determination section (see Figure 11, 3110, 4005, 4002) for determining the second channel band (see column 60 lines 36 through column 61 line 15

"bandwidth is set to be the value notified....10Mbps") to be obtained (see column 60 lines 36 through column 61 line 15 "bandwidth is set to be the value notified....10Mbps"), changed (see column 60 lines 36 through column 61 line 15 "bandwidth is set to be the value notified....10Mbps"), or released in the second communications network (see column 60 lines 36 through column 61 line 20 "base station node...channel ...on the radio network" and Figure 1 "Radio Network" and col 40 lines 40-50 "radio resources...released"; col 45 lines 20-55 "radio resources...is released" and figs 31, 36), in accordance with the event and/or the state (see section column 60 line 36 through column 61 line 20 "acquires the Isochronous channel X...packets ...are about to be received....connection command....acquire channel...bandwidth is set"), regarding the first communications network (see column 60 line 36 through column 61 lines 20 "The 1394 node" and Figure 1, 3110, 3102,3101 "IEEE 1394"), detected by the event/state detecting section (see Figure 11, 3110, 4005, 4002); and a communications resource management section (see Figure 11, 3110, 4005, 4002) for obtaining (see column 60 lines 36 through column 61 line 15 "bandwidth is set to be the value notified....10Mbps...packets are to be transmitted....channel A"), changing (see column 60 lines 36 through column 61 line 15 "bandwidth is set to be the value notified....10Mbps...packets are to be transmitted....channel A"), the second channel band (see column 60 lines 36 through column 61 line 15 "bandwidth is set to be the value notified....10Mbps") in the second communications network (see column 60 lines 36 through column 61 line 20 "base station node...channel ...on the radio network" and Figure 1 "Radio Network") via the second network interface (see Figure 1, 3110,

"Radio Interface") on the basis of the channel band determined (see column 60 lines 36 through column 61 line 15 "bandwidth is set to be the value notified....10Mbps") by the communications resource determination section (see Figure 11, 3110, 4005, 4002).

For claim 2, Yoshiaki discloses the first communications network (see Figure 1, 3110, 3102,3101 "IEEE 1394") is a communications network (see Figure 1, 3110, 3102,3101 "IEEE 1394") with which said device (see Figure 1, 3110) can transmit data after securing the first channel band (see column 60 lines 36 through column 61 line 45 " "acquires channel A on the radio network....bandwidth is set...base station 9110 transfers the converted image data to the channel a on the radio network"), and the event and/or the state (see column 60 line 36 through column 61 line 10 "packets ...are about to be received....connection command....connection between...base station node"), regarding the first communications network (see column 60 line 36 through column 61 line 10 "1394 node....packets ...are about to be received....connection command....connection between...base station node") , detected by the event/state detecting section (see Figure 11, 3110, 4005, 4002) is obtaining (see column 60 line 36 through column 61 line 40 "node 9101...acquires Isochronous channel...bandwidth is set to be 10Mbps"), changing (see column 60 line 36 through column 61 line 40 "node 9101...acquires Isochronous channel...bandwidth is set to be 10Mbps"), or releasing of the first channel band (see column 60 line 36 through column 61 line 40 "node 9101...acquires Isochronous channel...bandwidth is set to be 10Mbps" and fig 31, 36; Disconnect and col 45 lines 20-40 "is disconnected") in the first communications network (see Figure 1, 3110,

3102,3101 "IEEE 1394" and column 60 lines 36-60 "1394 node"), or a channel band obtaining state (see column 60 line 36 through column 61 line 40 "node 9101…acquires Isochronous channel…bandwidth is set to be 10Mbps"), for data to be transferred (see column 60 line 36 through column 61 line 10 "packets ...are about to be received....connection command....connection between...base station node" and column 60 line 36 through column 61 line 45 "node 9101 transmits the image data…image data to be transferred on the radio network….transfers the converted image data to the channel…radio network…received video data") between (see column 60 line 36 through column 61 line 10 "packets ...are about to be received....connection command....connection between...base station node" and column 60 line 36 through column 61 line 45 "node 9101 transmits the image data…image data to be transferred on the radio network….transfers the converted image data to the channel…radio network…received video data") the first communications network (see Figure 1, 3110, 3102,3101 "IEEE 1394") and the second communications network (Figure 1, "Radio Network", 3120, 3110) .

For claim 3, Yoshiaki discloses the event and/or the state (see column 60 line 36 through column 61 line 10 "packets ...are about to be received....connection command....connection between...base station node") , regarding the first communications network (see column 60 line 36 through column 61 line 10 "1394 node….packets ...are about to be received....connection command....connection between...base station node"), detected by the event/state detecting section (see Figure

11, 3110, 4005, 4002) is reception or completed reception of data (see column 60 line 36 through column 61 line 40 "transfers the…command …to the base station…extracts the command frame from the received packet") itself to be transferred data (see column 60 line 36 through column 61 line 40 "transfers the…command …to the base station…extracts the command frame from the received packet…..base station…transfers the command…to the radio terminal") from the first communications network (see Figure 1, 3110, 3102,3101 "IEEE 1394") to the second communications network (Figure 1, "Radio Network", 3120, 3110).

For claim 5, Yoshiaki discloses the first communications network (see Figure 1, 3110, 3102,3101 "IEEE 1394") is a communications network (see Figure 1, 3110, 3102,3101 "IEEE 1394") with which said device (see Figure 1, 3110) can transmit data after securing the first channel band band (see column 60 lines 36 through column 61 line 45 " "acquires channel A on the radio network….bandwidth is set…base station 9110 transfers the converted image data to the channel a on the radio network"), and the communications resource determination (see Figure 11, 3110, 4005, 4002) section determines the second channel band (see column 60 lines 36 through column 61 line 15 "bandwidth is set to be the value notified….10Mbps") in the second communications network (see column 60 lines 36 through column 61 line 20 "base station node…channel …on the radio network" and Figure 1 "Radio Network"), on the basis of the first channel band obtained (see column 60 lines 36-60 "1394 node…or the base station node…acquires the Isochronous channel X on the IEEE 1394 bus"), changed (see column

60 lines 36-60 "1394 node…or the base station node…acquires the Isochronous channel X on the IEEE 1394 bus"), in the first communications network (see column 60 lines 36-60 "the IEEE 1394 bus").

For claim 12, Yoshiaki discloses a network management section (see column 39 line 41 through column 41 line 35 "node 601") for detecting (see column 39 line 41 through column 41 line 35 "handoff processing…to communication node 601 is started") a communications resource management station (see column 39 line 41 through column 40 line 35 "radio terminal") which manages the second channel band (see column 39 line 41 through column 40 line 35 "radio resource between the communication node…and the radio terminal…is reserved…. radio terminal …notifies the handoff information….to communication node 601") in the second communications network (Figure 1, "Radio Network"), wherein
from which communications station (see column 39 line 41 through column 40 line 35 "radio terminal") on the second communications network (Figure 1, "Radio Network") serves as the
communications resource management station(see column 39 line 41 through column 40 line 35 "radio resource between the communication node…and the radio terminal…is reserved…. radio terminal …notifies the handoff information….to communication node 601"), detected by the network management section (see column 39 line 41 through column line 35 "node 601"), the

communications resource management section (see column 39 line 41 through column 40 line 35 "radio terminal") judges whether said network relay device (see column 39 line 41 through column 41 line 35 "handoff processing....change the node to be connected ") is to

is to request other communications station (see column 39 line 41 through column 40 line 35 "radio resource between the communication node...and the radio terminal...is reserved.... radio terminal ...notifies the handoff information....to communication node 601") on the

second communications network (Figure 1, "Radio Network") to obtain (see column 39 line 41 through column 40 line 35 "radio resource between the communication node...and the radio terminal...is reserved.... radio terminal ...notifies the handoff information....to communication node 601" and see column 60 lines 36 through column 61 line 15 "bandwidth is set to be the value notified....10Mbps"), change (see column 39 line 41 through column 40 line 35 "radio resource between the communication node...and the radio terminal...is reserved.... radio terminal ...notifies the handoff information....to communication node 601" and see column 60 lines 36 through column 61 line 15 "bandwidth is set to be the value notified....10Mbps"), or release (see column 60 lines 36 through column 61 line 20 "base station node...channel ...on the radio network" and Figure 1 "Radio Network" and col 40 lines 40-50 "radio resources...released"; col 45 lines 20-55 "radio resources...is released" and figs 31, 36) the second channel band (see column 39 line 41 through column 40 line 35 "radio

resource between the communication node…and the radio terminal…is reserved…. radio terminal …notifies the handoff information….to communication node 601").

For claim 17, Yoshiaki discloses the communications resource management section obtains (see column 42 lines 1-20 "turning back …to ch_Y"), changes (see column 42 lines 1-20 "turning back …to ch_Y"), or releases (see column 42 lines 1-15 "ch_x is disconnected" and see column 60 lines 36 through column 61 line 20 "base station node…channel …on the radio network" and Figure 1 "Radio Network" and col 40 lines 40-50 "radio resources…released"; col 45 lines 20-55 "radio resources…is released" and figs 31, 36) a channel band (see column 42 "ch_X….CH_Y") in the second communications network (Figure 1, "Radio Network", 3120, 3110 or , 3110, 3102,3101 "IEEE 1394") , after a lapse of a given time (see column 42 lines 1-15 "prescribed period of time") from detection of a network state "connect,disconnect..request for start data….received") in the first communications network network (see Figure 1, 3110, 3102,3101 "IEEE 1394" or "Radio Network", 3120, 3110).

For claim 22, Yoshiaki discloses the first communications network (see Figure 1, 3110, 3102,3101 "IEEE 1394" or "Radio Network", 3120, 3110) or the second communications network (see Figure 1, 3110, 3102,3101 "IEEE 1394" or "Radio Network", 3120, 3110) is in conformity with IEEE 1394 (see Figure 1, 3110, 3102,3101 "IEEE 1394).

For claim 23, Yoshiaki discloses the first communications network (see Figure 1, 3110, 3102,3101 "IEEE 1394" or "Radio Network", 3120, 3110) or the second communications network (see Figure 1, 3110, 3102,3101 "IEEE 1394" or "Radio Network", 3120, 3110) is a wireless network (see Figure "Radio Network", 3120, 3110).

For claim 28, Yoshiaki discloses a network relay (see Figure 1, 3110) computer program (see column 63 lines 40-45 "software program") stored on a computer readable medium (see section 0292 lines 1-10 "storage medium") which when executed causes a computer (see column 63 lines 40-45 "software program…nodes...terminals" and section 0292 lines 1-10 section 0292 "computer…perform discloses function and process..") to execute an operation (see column 63 lines 40-45 "emobdiements") of the network relay device (see Figure 1, 3110) .

For claim 29, Yoshiaki discloses a computer readable medium (see section 0292 lines 1-10 "storage medium") encoded with a network relay computer program (see section 0291, 0292 lines 1-10 "software program") causing a computer (see section 0291 lines 1-10 "a computer to perform") to execute an operation (see section 0292 "computer…perform discloses function and process..") of the network relay device (see Figure 1, 3110).

For claim 33, Yoshiaki discloses A communication method wherein a relay node (see Figure 1, 3110) is connected to a first communications node (see Figure 1, 3110,

3102,3101 "IEEE 1394" or "Radio Network", 3120, 3110) communicating with a first channel band (see section 0134 "radio resources…bandwidth necessary…isochronous channel on the IEEE 1394 bus" and column 35 lines 18-25 "acquires …isochronous channel….bandwidth of the isochrounous channel…is equal to 10 Mpbs" and see column 60 lines 36 through column 61 line 45 "acquires the Isochronous channel X….acquires channel A on the radio network….bandwidth is set…base station 9110 transfers the converted image data to the channel a on the radio network"), and a second communications node (see fig 1; 3120) with which said relay node can transmit data after securing a second channel band (see column 60 lines 36 through column 61 line 45 " "acquires channel A on the radio network….bandwidth is set…base station 9110 transfers the converted image data to the channel a on the radio network"), said relay node including a first interface (see Figure 1, 3110, 3102,3101 "IEEE 1394" or "Radio Network", 3120, 3110) where said relay node (see Figure 1, 3110) is connected to the first communications node (see Figure 1, 3110, 3102,3101 "IEEE 1394" or "Radio Network", 3120, 3110) and a second interface (see fig 1; Radio interface) where said relay node is connected to the second communications node (see fig 1; 3120), wherein the communication method comprising the steps of:

a) detecting an event and/or a state (see column 60 line 36 through column 61 line 20 "packets ...are about to be received....connection command....connection between...base station node") regarding the first communications node via the first interface (see fig 1, 3110, 3102,3101 "IEEE 1394")

b) determining the second channel band to be obtained (see column 60 lines 36 through column 61 line 45 " "acquires channel A on the radio network....bandwidth is set...base station 9110 transfers the converted image data to the channel a on the radio network"), changed (see column 60 lines 36 through column 61 line 45 " "acquires channel A on the radio network....bandwidth is set...base station 9110 transfers the converted image data to the channel a on the radio network"), or released (see column 60 lines 36 through column 61 line 20 "base station node...channel ...on the radio network" and Figure 1 "Radio Network" and col 40 lines 40-50 "radio resources...released"; col 45 lines 20-55 "radio resources...is released" and figs 31, 36) in the second communications node (see fig 1; 3120), in accordance with the event and/or the state, regarding the first communications node (see section column 60 line 36 through column 61 line 20 "acquires the Isochronous channel X...packets ...are about to be received....connection command....acquire channel...bandwidth is set" and column 42 lines 1-15 "ch_x is disconnected" and see column 60 lines 36 through column 61 line 20 "base station node...channel ...on the radio network" and Figure 1 "Radio Network" and col 40 lines 40-50 "radio resources...released"; col 45 lines 20-55 "radio resources...is released" and figs 31, 36, disconnect), as detected in step a); and

c) obtaining (see column 60 lines 36 through column 61 line 45 " "acquires channel A on the radio network....bandwidth is set...base station 9110 transfers the converted image data to the channel a on the radio network"), changing (see column 60 lines 36 through column 61 line 45 " "acquires channel A on the radio network....bandwidth is set...base station 9110 transfers the converted image data to the channel a on the radio network"),

or releasing the second channel band (see column 60 lines 36 through column 61 line 20 "base station node…channel …on the radio network" and Figure 1 "Radio Network" and col 40 lines 40-50 "radio resources…released"; col 45 lines 20-55 "radio resources…is released" and figs 31, 36), in accordance with the event and/or the state (see section column 60 line 36 through column 61 line 20 "acquires the Isochronous channel X…packets ...are about to be received....connection command….acquire channel…bandwidth is set")in the second communications node via the second interface (see fig 1; 3120, Radio, Radio interface") on the basis of the channel band determined in step b) (see column 60 lines 36 through column 61 line 45 " "acquires channel A on the radio network….bandwidth is set…base station 9110 transfers the converted image data to the channel a on the radio network" and column 60 lines 36 through column 61 line 20 "base station node…channel …on the radio network" and Figure 1 "Radio Network" and col 40 lines 40-50 "radio resources…released"; col 45 lines 20-55 "radio resources…is released" and figs 31, 36), in accordance with the event and/or the state (see section column 60 line 36 through column 61 line 20 "acquires the Isochronous channel X…packets ...are about to be received....connection command….acquire channel…bandwidth is set").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki (EP0969628) in view of Garg et al. (2004/0008627).

For claim 4, Yoshiaki discloses the claimed invention as described in paragraph 2.

For claim 4, Yoshiaki discloses the communications resource determination section (see Figure 11, 3110, 4005, 4002) determines, on the first channel band (see column 60 lines 36 through column 61 line 15 "IEEE 1394 bus.....bandwidth is set to be 10

Mbps….requested bandwidth …..bandwidth is set to be the value notified….10Mbps"), a band required band (see column 60 lines 36 through column 61 line 15 "requested bandwidth …..bandwidth is set to be the value notified….10Mbps") for communications of the data group (see column 60 lines 36 through column 61 line 45 " "acquires channel A on the radio network….bandwidth is set…base station 9110 transfers the converted image data to the channel a on the radio network") in the second communications network (Figure 1, "Radio Network", 3120, 3110 or , 3110, 3102,3101 "IEEE 1394").

Yoshiaki is silent about:

For claim 4, channel band obtained by measurement of data group received from the first communications network

Garg from the same or similar field of endeavor discloses a communication network with the following features:

For claim 4, channel band (see section 0058 lines 1-10 "bandwidth") obtained by measurement (see section 0058 lines 1-10 "monitors the traffic….computes the bandwidth") of data group (see section 0058 lines 1-10 "each flow") received from the first communications network (see section 0058 lines 1-10 "traffic to an from the wireless network").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Yoshiaki by using the features, as taught Garg, in order to provide a technique for measuring network capacity and for providing admission control in a wireless network (see section 0006 and 0007)

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki (EP0969628) in view of An (US 2001/0040919).

For claim 6, Yoshiaki discloses the claimed invention as described in paragraph 2. Furthemore, for claim 6 Yoshiaki discloses, the communications resource determination section (see Figure 11, 3110, 4005, 4002) obtains a bandwidth (see column 60 lines 36 through column 61 line 15 "bandwidth is set to be 10 Mbps…..bandwidth is set to be the value notified….10Mbps") through the first channel band obtained (see column 60 lines 36 through column 61 line 15 "bandwidth is set to be 10 Mbps…..bandwidth is set to be the value notified….10Mbps"), changed (see column 60 lines 36 through column 61 line 15 "bandwidth is set to be 10 Mbps…..bandwidth is set to be the value notified….10Mbps"1), or released (see column 60 line 36 through column 61 line 40 "node 9101…acquires Isochronous channel…bandwidth is set to be 10Mbps" and fig 31, 36; Disconnect and col 45 lines 20-40 "is disconnected") in the first communications network (see Figure 1, 3110, 3102,3101 "IEEE 1394" or "Radio Network", 3120, 3110), and then determines the second channel band (see column 60 lines 36 through column 61 line 15 "bandwidth is set to be the value notified….10Mbps" and fig 31, 36; Disconnect and col 45 lines 20-40 "is disconnected", Release Radio section Resource) in the second communications network (see column 60 lines 36 through column 61 line 20 "base station node…channel …on the radio network" and Figure 1 "Radio Network") on the basis of the obtained bandwidth (see column 60 lines 36 through column 61 line 15 "bandwidth is set to be the value notified….10Mbps").

Yoshiaki is silent about:

For claim 6, estimates a bandwidth of data transmitted through the channel band obtained, changed, in the first communications network.

An from the same or similar field of endeavor discloses a communication network with the following features:

For claim 6, An discloses estimates a bandwidth (see section 0027 lines 1-10 "estimated data transmission rate") of data transmitted (see section 0027 lines 1-17 "bandwidth is allocated…transmission") through the channel band obtained (see section 0027 lines 1-17 "bandwidth is allocated"), changed (see section 0027 lines 1-17 "bandwidth is allocated"), in the first communications network (see section 0037 lines 1-20 "IEEE 1394"),

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Yoshiaki by using the features, as taught An, in order to efficiently utilize the bandwidth of the IEEE 1394 buss (see section 0006 and 0007).

5. Claim 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki (EP0969628) in view of Teramoto et al (US 6,885,643).

For claim 7, Yoshiaki discloses the claimed invention as described in paragraph 2. Furthemore, for claim 7 Yoshiaki discloses, the communications resource determination section (see Figure 11, 3110, 4005, 4002) determines the second channel band (see column 60 lines 36 through column 61 line 15 "bandwidth is set to be the value notified….10Mbps") to be secured (see column 60 lines 36 through column 61 line 15 "acquires channel A…..bandwidth is set to be the value notified….10Mbps") in the

second communications network (see column 60 lines 36 through column 61 line 15 "radio network….bandwidth is set to be the value notified….10Mbps").

Furthemore, for claim 8 Yoshiaki discloses, the communications resource determination section (see Figure 11, 3110, 4005, 4002) determines the second channel band (see column 60 lines 36 through column 61 line 15 "bandwidth is set to be the value notified….10Mbps") to be secured (see column 60 lines 36 through column 61 line 15 "acquires channel A…..bandwidth is set to be the value notified….10Mbps") in the second communications network (see column 60 lines 36 through column 61 line 15 "radio network….bandwidth is set to be the value notified….10Mbps"), on the basis of (i) a channel band required (see column 60 lines 36 through column 61 line 15 "radio network….bandwidth is set to be the value notified….10Mbps") **in the second communication network** (Figure 1, "Radio Network", 3120, 3110 or , 3110, 3102,3101 "IEEE 1394" and column 60 lines 36 through column 61 line 15 "radio network….bandwidth is set to be the value notified….10Mbps") for normal data transmission (see column 60 lines 36 through column 61 line 15 "radio network….bandwidth is set to be the value notified….10Mbps") and (ii) data retransmission (see column 60 lines 36 through column 61 line 15 "radio network …requested bandwidth….bandwidth is set to be the value notified….10Mbps").

Yoshiaki is silent about:

For claim 7, with consideration of a property of the second communications network.

For claim 9, a communications state detecting section for detecting a communications state in the

second communications network, wherein: the communications resource management section changes the second channel band having been obtained in the second communications network, in accordance with a change in communications state of a band-obtained data in the second communications network.

Teramoto from the same or similar field of endeavor discloses a communication network with the following features:

For claim 7, Teramoto discloses with consideration (see column 12 lines 47-55 "wireless link condition information…changing he data transfer rate") of a property (see column 3 lines 40-52 "consider….dynamically varying network condition") of the second communications network (see column 3 lines 40-52 "wireless link").

For claim 9, Teramoto discloses a communications state detecting section (see column 12 lines 25-55 "Link monitor processor…application processor") for detecting a communications state (see column 12 lines 25-55 "wireless link condition information") in the second communications network (see column 3 lines 40-52 "wireless link"), wherein: the communications resource management section (see column 12 lines 25-55 "application processor") changes the second channel band having been obtained (see column 12 lines 25-55 "changing the data transfer rate") in the second communications network (see column 3 lines 40-52 "wireless link"), in accordance with a change (see column 3 lines 40-52 "consider….dynamically varying network condition") in communications state (see column 3 lines 40-52 "consider….dynamically varying network condition") of a band-obtained data (see column 3 lines 40-52

"consider....dynamically varying network condition") in the second communications network (see column 3 lines 40-52 "wireless link").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Yoshiaki by using the features, as taught Teramoto, in order to be able to select the AV data type and transfer rate usable based on the wireless link condition (see column 2 lines 11-40).

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki (EP0969628) in view of An (US 2001/0040919) as applied above to claim 9, further in view of Ma et al (US 2004/0001429).

For claim 10, Yoshiaki and An discloses the claimed invention as described in paragraph 7.

Yoshiaki and An are silent about:

For claim 10, the communications state detecting section detects an error rate of data transmission in the second communications network, and if the error rate exceed a given value, the communications resource management section increases the second channel band having been obtained in the second communications network.

Ma et al from the same or similar field of endeavor discloses a communication network with the following features:

For claim 10, Ma discloses the communications state detecting section (see section 0259 lines 1-5 "base station") detects an error rate (see section 0259 lines 1-5 "detects...error rate") of data transmission (see section 0259 lines 1-5 "received data") in the second

communications network (see Figure 1, 652,600,650,602,604), and if the error rate exceed a given value (see section 0259 lines 1-5 "error rate is higher…than target value"), the communications resource management section (see section 0259 lines 1-5 "base station") increases the second channel band having been obtained (see section 0259 lines 1-5 "sends...command...increase the transmit rate") in the second communications network (see Figure 1, 652,600,650,602,604).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Yoshiaki and An by using the features, as taught Ma, in order to provide quality of service and features required in cellular networks that support multiple-user access (see section 0009-0011).

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki (EP0969628) in view of An (US 2001/0040919) as applied to claim 9 above, further in view of Igarashi et al (US 2007/0184839).

For claim 11, Yoshiaki and An discloses the claimed invention as described in paragraph 5.

Yoshiaki and An are silent about:

For claim 11, the communications state detecting section detects a data communications time in the second communications network, and as a result of comparison between the data communications time and a time given by an already allocated channel band, the communications resource management section changes the second channel band obtained in the second communications network.

Igarashi from the same or similar field of endeavor discloses a communication network with the following features:

For claim 11, Igarashi discloses the communications state detecting section (see section 0105 "base station") detects a data communications time (see section 0105 "delay in reverse link") in the second communications network (see section 0105 "connection …mobile station to a base station"), and as a result of comparison (see section 0105 "detected when ..not transmitted to …within a predetermined time period") between the data communications time (see section 0105 "delay in reverse link…delay in a reverse line") and a time given (see section 0105 "predetermined time period") by an already allocated channel band (see section 0105 connection for transmitting data…predetermined time period") , the communications resource management section (see section 0105 "base station") changes the second channel band obtained (see section 0105 "data rate of a corresponding connection is improved") in the second communications network (see section 0105 "connection …mobile station to a base station").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Yoshiaki and An by using the features, as taught Igarashi, in order to provide a handoff method and a resource management where handoff is determined according to usage of resources in order to provide the most communication resources and high speed available (see section 0009-0013)

8. Claim 13, 14, 16, 18, 19 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki (EP0969628) in view of Takeda (US 6,512,767).

For claim 13, 14, 16,18, 24 Yoshiaki discloses the claimed invention as described in paragraph 2.

Yoshiaki is silent about:

For claim 13, Takeda discloses, the event/state detecting section receives information on network state from other communications device connected to the first network.

For claim 14, Takeda discloses the event/state detecting section requests information on network state to other communications device connected to the first network.

For claim 16, Takeda discloses the event/state detecting section checks a network state in the first communications network upon receipt of notification of a predetermined event from the first communications network.

For claim 18, the event/state detecting section detects, as the network state in the first communications network, presence or absence of other entity which communicates data with said device in the first communications network.

For claim 19, the event/state detecting section detects, as the network state in the first communications network, a connection established state in the first communications network.

For claim 24, the first communications network is in conformity with IEEE1394, and an event notified from the first communications network is a bus reset defined by the IEEE1394.

Takeda from the same or similar field of endeavor discloses a communication network with the following features:

For claim 13, the event/state detecting section (see Figure 8, 805 or 804 column 22 lines 1-12 "notification receiving means") receives information (see column 22 lines 1-12 "notifies the detection to the notification receiving means") on network state (see column 21 lines 39-64 "whether a node …is connected ") from other communications device (see column 21 lines 39-64 "operation state notifying means") connected to the first network (see column 21 lines 6-15 "IEEE 1394" and Figure 8 , 607 , 609, 802).

For claim 14, Takeda discloses the event/state detecting section (see Figure 8, 805 or 804 column 22 lines 1-12 "notification receiving means") requests information (see column 21 lines 39-64 "receives a request ") on network state ((see column 21 lines 39-64 "whether a node …is connected ") to other communications device (see column 21 lines 39-64 "request accepting means….transmission medium connecting device") connected to the first network (see Figure 8 , 607,609).

For claim 16, Takeda discloses the event/state detecting section (see Figure 8, 805 or 804 column 22 lines 1-12 "notification receiving means") checks a network state (see column 21 lines 39-64 "whether a node …is connected ") in the first communications network (see Figure 8 , 607,609) upon receipt of notification (see column 21 lines 39-64 "issues a request") of a predetermined event (see column 21 lines 39-64 ") from the first communications network (see Figure 8 , 607,609).

For claim 18, Takeda discloses the event/state detecting section (see Figure 8, 805 or 804 column 22 lines 1-12 "notification receiving means") detects, as the network state (see column 21 lines 39-64 "whether a node …is connected ") in the first communications network (see Figure 8 , 607,609), presence or absence of other entity state (see column 21

lines 39-64 "whether a node …is connected ") which communicates data (see column 21 lines 40-20 "transferring a packet between the media") with said device (see Figure 8, 801,804,805) in the first communications network (see Figure 8 , 607,609).

For claim 19, Takeda discloses the event/state detecting (see Figure 8, 805 or 804 column 22 lines 1-12 "notification receiving means") section detects, as the network state (see column 21 lines 39-64 "whether a node …is connected ") in the first communications network (see Figure 8 , 607,609), a connection established state (see column 21 lines 39-64 "whether a node …is connected ") in the first communications network (see Figure 8 , 607,609).

For claim 24, Takeda discloses the first communications network (see Figure 8 , 607,609) is in conformity with IEEE1394 (see column 21 lines6-15 "IEEE 1394 interface") , and an event notified (see column 21 lines 54-65 "checking….in which a bus reset occurs….bus reset") from the first communications network (see Figure 8 , 607,609) is a bus reset (see column 21 lines 54-65 "checking….in which a bus reset occurs….bus reset") defined by the IEEE1394 (see column 21 lines6-15 "IEEE 1394 interface").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Yoshiaki by using the features, as taught Takeda, in order to provide a method where plural busses are connected to one another devices can operate normally (see column 6 lines 5-30).

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki (EP0969628) in view of Takeda (US 6,512,767) as applied to claim 14 above, further in view of Seki (US 2003/0018753).

For claim 15, Yoshiaki and Takeda disclose the claimed invention as in paragraph 8.

Yoshiaki and Takeda are silent about:

As regarding claim 15,the event/state detecting section checks a network state in the first communications network at regular intervals.

Seki from the same or similar field of endeavor disclose a communication network with the following features:

As regarding claim 15, Seki discloses the event/state detecting section(see section 0123 "gateway") checks a network state (see section 0123 "check…apparatuses…collect information….state of the ….apparatus") in the first communications network (see Figure 1, 7, "IEEE 1394") at regular intervals (see section 0123 "regular time intervals").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Yoshiaki and Takeda by using the features, as taught Seki, in order to provide to be able to monitor the state continuously and to enable remote terminal to request using general protocols without specific control programs (see section 0017).

10. Claims 20 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki (EP0969628) in view of Ito et al (US 6,529,522).

For claim 20, Yoshiaki discloses a network relay device (see Figure 1, 3110) , connected to (i) a first communications network (see Figure 1, 3110, 3102,3101 "IEEE 1394") with which said device can transmit data (see column 60 lines 36 through column 61 line 45 " "acquires channel A on the radio network….bandwidth is set…base station 9110 transfers the converted image data to the channel a on the radio network") after securing a channel band on the first communication network communications resource (see column 60 lines 36 through column 61 line 45 " "acquires channel A on the radio network….bandwidth is set…base station 9110 transfers the converted image data to the channel a on the radio network") ii) a second communications network (Figure 1, "Radio Network", 3120, 3110) having a property (see Figure 1, "Radio") which is different (see section 0008 lines 1-5 "cable") from that of the first communications network Figure 1, "Radio Network", 3120, 3110) , said device (see Figure 1, 3110) including a first network interface (see Figure 1, 3110, "IEEE 1394") where said device (see Figure 1, 3110) is connected (see Figure 1, 3110, 3102, 3101) to the first communications network (see Figure 1, 3110, 3102,3101) and a second network interface (see Figure 1, 3110, "Radio Interface") where said device (see Figure 1, 3110) is connected to the second communications network (see Figure 1, 3110, 3120 and section 0122 lines 1-15 "connected by a radio interface" ; note connection), said device (see Figure 1, 3110) comprising:

a network component (see Figure 26, 5410) to which other communications station (see Figure 1, 3101,3102) connected to the first

communications network (see Figure 1, 3101,3102,3110, IEEE 1394) makes access so as to secure a channel band (see column 35 lines 18-25 "acquires …isochronous channel….bandwidth of the isochrounous channel…is equal to 10 Mpbs") on the first communications network (see column 35 lines 18-25 "IEEE 1394 bus"); and

a connection management section for identifying a connection that corresponds to a communication resource which is released (see column 42 lines 1-15 "ch_x is disconnected" and see column 60 lines 36 through column 61 line 20 "base station node…channel …on the radio network" and Figure 1 "Radio Network" and col 40 lines 40-50 "radio resources…released"; col 45 lines 20-55 "radio resources…is released" and figs 31, 36)

For claim 21, Yoshiaki discloses the connection management section (see column 40 lines 15-37 "control node 611 and section 0193 lines 1-6 "communication node 602 to have the function of the control node "), upon receipt of a connection cut-off request (see column 40 lines 15-37 "disconnect command") or a band release request (see column 40 lines 15-37 "disconnect command") regarding a connection (see column 40 lines 15-37 "connection between the i_plug….decoder Sub") having been set on (see column 40 lines 15-37 "connection between the i_plug….decoder Sub") the first communications network (see column 35 lines 18-25 "IEEE 1394 bus"), disables the network component (see column 40 lines 15-37 "connection between….node 602 is disconnected"), on said network relay device (see column 40 lines 15-37 "communication node 602"), associated with the connection (see column 40 lines 15-37 "connection between the i_plug….decoder Sub").

For claim 34, Yoshiaki discloses A communication method wherein a relay node (see Figure 1, 3110) , connected to (i) a first communications node (see Figure 1, 3110, 3102,3101 "IEEE 1394") with which said relay node (see Figure 1, 3110) can transmit data (see col 60 lines 35 through col 61 lines 15 "that packets from Isochronous channel...are to be received…transfers the …command") after securing a channel band (see section 0134 "radio resources…bandwidth necessary…isochronous channel on the IEEE 1394 bus" and column 35 lines 18-25 "acquires …isochronous channel….bandwidth of the isochrounous channel…is equal to 10 Mpbs" and see column 60 lines 36 through column 61 line 45 "acquires the Isochronous channel X….acquires channel A on the radio network….bandwidth is set…base station 9110 transfers the converted image data to the channel a on the radio network") on the first communication node (see Figure 1, 3110, 3102,3101 "IEEE 1394") and (ii) a second communications node (see fig 1 ; 3120) having a property which is different from that of the first communications node (see fig 1; Radio), said relay node including a first interface where said relay node is connected to the first communications node (see Figure 1, 3110, 3102,3101 "IEEE 1394") and a second interface where said relay node is connected to the second communications node (see fig 1; Radio, Radio interface, 3120), wherein the communication method comprising the steps of:

accessing a network component to secure a channel band see section 0134 "radio resources…bandwidth necessary…isochronous channel on the IEEE 1394 bus" and column 35 lines 18-25 "acquires …isochronous channel….bandwidth of the isochrounous channel…is equal to 10 Mpbs" and see column 60 lines 36 through column

61 line 45 "acquires the Isochronous channel X....acquires channel A on the radio network....bandwidth is set...base station 9110 transfers the converted image data to the channel a on the radio network") on the first communications node (see Figure 1, 3110, 3102,3101 "IEEE 1394") ; and

identifying a connection that corresponds to a communication resource which is released (see column 60 lines 36 through column 61 line 20 "base station node...channel ...on the radio network" and Figure 1 "Radio Network" and col 40 lines 40-50 "radio resources...released"; col 45 lines 20-55 "radio resources...is released" and figs 31, 36 or column 60 line 36 through column 61 line 40 "node 9101...acquires Isochronous channel...bandwidth is set to be 10Mbps" and fig 31, 36; Disconnect and col 45 lines 20-40 "is disconnected").

Yoshiaki is silent about:

For claim 20 and 34, for controlling availability/unavailability of the network component.

Ito from the same or similar field of endeavor discloses:

For claim 20 and 34, Ito discloses controlling availability/unavailability (see column 15 lines 38-50 "controller....disable the function of the interface" and column 15 lines 38-50 "controller....1394 interface") of the network component (see column 15 lines 38-50 "1394 interface").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Yoshiaki by using the features, as taught Ito, in order to control the power supply of the 1394 interface for power saving features and to be able to set up communication with devices of different standard (see column 2 lines 30-55).

Furthermore, the prior art of Ito disclosed a technique of controlling the availability of a 1394 interface (and wireless network) and the prior art of Yoshiaki discloses a similar 1394/wireless network. One of the ordinary skill in the art could have applied this power saving feature to any of the devices discloses by Yoshiaki and the results would have been predictable.

11. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki (EP0969628) in view of Masunaga et al. (US 2002/0061025)

For claim 25, Yoshiaki discloses the claimed invention as described in paragraph 2. Yoshiaki further disclose, for claim 25, the first communications network (see Figure 1, 3101,3102,3110, IEEE 1394) is in conformity with IEEE1394 (see Figure 1, 3101,3102,3110, IEEE 1394)

Yoshiaki is silent about:

As regarding claim 25, as a state of obtaining the first channel band in the first communications network, used is a value of BANDWIDTH-AVAILABLE or CHANNELS-AVAILABLE register) held by an Isochronous Resource Manager in the first communications network.

Masunaga from the same or similar field of endeavor discloses an IEEE 1394 network with the following features:

As regarding claim 25, as a state of obtaining the first channel band (see section 0027 "request…the desired channel and bandwidth") in the first communications network (see section 0020 IEEE 134 and Figure 3a), used is a value of BANDWIDTH-AVAILABLE (see section 0027 and 0028 "Bandwidth_Available") or CHANNELS-AVAILABLE

register (see section 0027 and 0028 "Channels_Available") held by an Isochronous Resource Manager (see section 0027 "IRM") in the first communications network (see section 0020 IEEE 134 and Figure 3a).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Yoshiaki by using the features, as taught Masunaga, in order to comply with IEEE 1394 standards.

12. Claim 26, is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki (EP0969628) in view of Takeda et al. (US 2005/0163156)

For claim 26, Yoshiaki discloses the claimed invention as described in paragraph 8.

Furthermore, for claim 26, Yoshiaki discloses the first communications network (see Figure 1, 3101,3102,3110, IEEE 1394) is in conformity with IEEE1394 (see Figure 1, 3101,3102,3110, IEEE 1394)

Yoshiaki is silent about:

As regarding claim 26, as the connection established state in the first communications network, used is a connection counter value of a Plug Control Register held by a data transmitting station or data receiving station in the first communications.

Takeda from the same or similar field of endeavor disclose a 1394 network with the following features:

As regarding claim 26, as the connection established state (see section 0012 lines 1-12 "connection state of the node") in the first communications network (see Figure 1, 108,114), used is a connection counter value (see section 0154 lines 1-20 "PCR…connection counter") of a Plug Control Register (see section 0154 lines 1-20

"PCR") held by (see section 0154 lines 1-20 PCR....each nodes of P1394 has") a data transmitting station (see section 0154 lines 1-5 "P1394 node" and section 0152 "packet...transmission" and Figure 1 125) or data receiving station (see section 0154 lines 1-5 "P1394 node" and Figure 1, 125) in the first communications network (see Figure 1, 108,114).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Yoshiaki by using the features, as taught Takeda, in order to comply with IEEE 1394 standards and in order to decrees hardware size and for the transmission medium to be effectively utilized (see section 0031-0034).

13. Claim 27, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki (EP0969628) in view of Ito et al (US 6,529,522), as applied to claim 20 above, in further view of Takeda et al. (US 2005/0163156)

As regarding claim 27, Yoshiaki and Ito disclose the claimed invention as described in paragraph 10.

Yoshiaki and Ito are silent about:

As regarding claim 27, the network component is any one of a register , a Plug Control Register, and a 1394node.

As regarding claim 30, resetting a structure of the first network is further carried out.

Takeda from the same or similar field of endeavor discloses:

As regarding claim 27, Takeda discloses the network component (see section 0154 lines 1-20 PCR....each nodes of P1394 has") is any one of a register (see section 0154 lines 1-

20 PCR....each nodes of P1394 has"), a Plug Control Register (see section 0154 lines 1-20 PCR....each nodes of P1394 has"), and a 1394node (see section 0154 lines 1-20 PCR....each nodes of P1394 has").

As regarding claim 30, Takeda discloses resetting (see section 0012 lines 1-17 "bus reset") a structure (see section 0012 lines 1-17 "node") of the first network (see Figure 1, 108,114) is further carried out (see section 0012 lines 1-17 "bus reset generated").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Yoshiaki by using the features, as taught Takeda, in order to comply with IEEE 1394 standards and in order to decrees hardware size and for the transmission medium to be effectively utilized (see section 0031-0034).

14. Claim 31, is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki (EP0969628) in view of Kerr et al. (US 7,292,578)

For claim 31, Yoshiaki discloses the claimed invention as described in paragraph 2.

Yoshiaki is silent about:

For claim 34, the communication resource management section changes the second channel band by multiplying the second channel band with a predetermined factor.

Kerr from the same or similar field of endeavor discloses a communication network with the following features:

For claim 34, Kerr discloses the communication resource management section changes the second channel band by multiplying the second channel band with a predetermined factor (see col 10 lines 40-55 "scale factor....scale...bandwidth").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Yoshiaki by using the features, as taught by Kerr, in order to provide "a technique that supports common queuing and queue service disciplines within a framework that is sufficiently simple and compact for implementation in a hardware (ASIC) forwarding engine" (see Kerr col 3)

15. Claim 32, is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiaki (EP0969628), and An (US 2001/0040919) as applied to claim 6 above, further in view of Iuoras et al. (US 6,445,707)

For claim 32, Yoshiaki and An disclose the claimed invention as described in paragraph 4.

For claim 32, Yoshiaki further discloses the first (see section 0134 "radio resources…bandwidth necessary…isochronous channel on the IEEE 1394 bus" and column 35 lines 18-25 "acquires …isochronous channel….bandwidth of the isochrounous channel…is equal to 10 Mpbs" and see column 60 lines 36 through column 61 line 45 "acquires the Isochronous channel X….acquires channel A on the radio network….bandwidth is set…base station 9110 transfers the converted image data to the channel a on the radio network") and the second channel band band (see column 60 lines 36 through column 61 line 45 " "acquires channel A on the radio network….bandwidth is set…base station 9110 transfers the converted image data to the channel a on the radio network").

Yoshiaki is silent about:

For claim 32, the estimated bandwidth is estimated by dividing a size of the data transmitted through by a storage time of the data

Iuoras from the same or similar field of endeavor discloses a communication network with the following features:

For claim 32, Iuoras discloses the estimated bandwidth is estimated by dividing a size of the data transmitted through by a storage time of the data (see col 26 lines 5-20 "queue delay..dividing the queue size to the ABRDrainCapacity").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of X by using the features, as taught by X, in order to provide an efficient method for congestion avoidance to support ABR service with given cell loss tolerance (see Iuoras col 7).

Response to Arguments

16. Applicant's arguments filed 02/27/2008 have been fully considered but they are not persuasive.

For claim 20, the applicant alleges that the combination of Ito and Yoshiaki is improper. Both Ito and Yoshiaki are in the field of a 1394/wireless system; this makes them analogous art. Furthermore, both reference deal with controlling an 1394 interface/bus. The applicant is arguing that one can not combine a "operation knob" with a "network device". It is pointed out the applicant that this was not alleged. In the recited col 15 lines 38-50 discloses a method where a interface is disabled in order to save power ("controls the power supply unit…to disable the function of the 1394 interface….enable"). Further, even if the examiner did take the stance of combining an operation know and including it

in a network device, the rejection would have been proper. The knob controls the power of device (including a 1394 interface), such a knob (and it power control functionality) and the underlying circuit could have been easily implemented in any electronic device. Having a power supply/rail switch (turn on/off) controller (button or switch etc) is well known in the art; in order to conserve power when the device is not used.

In response to applicant's argument that the references of Yoshiaki and Ito are not combinable, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US-5,764,699 A	06-1998	Needham et al.	375/261
US-6,157,650 A	12-2000	Okuyama et al.	370/401
US-6,272,148 B1	08-2001	Takagi et al.	370/469
US-6,496,862 B1	12-2002	Akatsu et al.	709/224
US-7,248,573 B2	07-2007	Harrison et al.	370/338
US-6,845,090 B1	01-2005	Takabatake et al.	370/338

The above are recited to show method and systems of wireless gateways.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenan Cehic whose telephone number is (571) 270-3120. The examiner can normally be reached on Monday through Friday 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KC

/Kwang B. Yao/

Supervisory Patent Examiner, Art Unit 2616